JANUARY 1960

YEAR II OF NDEA

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"... to help improve instruction through the more effective use of materials."

AUDIOVISUAL INSTRUCTION

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AUDIOVISUAL INSTRUCTION is published monthly except July and August by the Department of Audio-Visual Instruction of the National Education Association of the United States, 1201 16th Street, N. W., Washington 6, D. C. AUDIOVISUAL INSTRUCTION goes to all members of the Department; membership dues including AUDIOVISAUL INSTRUCTION, $5 ($2 of which goes to AUDIOVISUAL INSTRUCTION); Single copies of AUDIOVISUAL INSTRUCTION, 50 cents, annual subscription, $4. Second class postage paid at Washington, D. C. Copyright 1960, Department of Audio-Visual Instruction, NEA. All articles are contributed.

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the EDITOR'S notebook

Attention DAVI Members
Nominee Preferences Solicited for 1961-62

EVERY DAVI MEMBER is urged to inform next year's Nominating Committee of his suggestions for the DAVI election which will take place in December 1960. *These should be in the hands of the Nominating Chairman prior to the Cincinnati Convention where the Nominating Committee will set up the slate for the December 1960 election.* Mail your suggestions to Walter Bell, Chairman, DAVI Nominating Committee at Atlanta Public Schools, 170 Tenth Street, N.E., Atlanta 9, Georgia, by February 15, 1960.

Please put your suggestions in the following form or use the ballot provided below:

1. Name *one* DAVI member you recommend to be nominated for President Elect for 1961-62 (to become President in 1962-63).

(Note: Jim Finn, Walter Bell and the President Elect chosen in the December 1959 election are not eligible. See the February 1960 issue of AVI for election results.)

2. Name *one* DAVI member you recommend to be nominated for Vice President for 1961-62.

(Note: Anyone other than the President Elect for 1960-61 is eligible for this nomination.)

3. Name *three* DAVI members you recommend to be nominated for Delegates-at-Large for 1961-64.

(Note: Officers and present Delegates-at-Large whose terms extend beyond 1961 are not eligible for nomination as Delegates-at-Large for the December 1960 elections. Thus the following are *not* eligible: the President Elect and the Delegates-at-Large elected in the December 1959 election —see February 1960 AVI for election results—and Lee E. Campion, Horace C. Hartsell, and Virginia Kelly, all of whom are serving as Delegates-at-Large through 1962.)

Remember — get your nomination preferences to Walter Bell, Atlanta Public Schools, 170 Tenth Street, N.E., Atlanta 9, Georgia, on or before February 15, 1960.

To: Walter Bell, Chairman, 1960 DAVI Nominating Committee

From: _____

(please type or print)

Please enter the following as my nomination suggestions for DAVI elections to take place in December 1960:

For President Elect for 1961-62 (one name only) _____

_____

For Vice President for 1961-62 (one name only) _____

_____

For three DAVI members for Delegates-at-Large for 1961-64 (three names only) _____

_____

_____

_____

Signed _____

WE WOULD LIKE to think that all of our members in the Northwest could attend the Cincinnati convention but we are certain that a few will be unable to do so. For them we recommend the forthcoming convention of the National Association of Secondary-School Principals in Portland, February 27 - March 2. Although at this time no program is available for inspection, I am told that they too have planned one general session on teaching machines (Saturday afternoon) and that they have scheduled the premiere of two films reporting some of the most outstanding findings from their staff utilization research project.

Also of interest will be the ASCD Conference in Washington, D.C., March 6-10. The Conference theme is "Social and Cultural Influences on Education." In addition to the general sessions, several of the group sessions will be of special interest to AV people, for example, Selection and Utilization of Out-of-School Resources; Education for Intelligent Consumption of Mass Media; and Utilizing Technology in Education Without Losing Sight of Sound Educational Objectives and Practices.

Taking place also in March are the National Conference of the Association for Higher Education in Chicago, March 6-9, and the annual meeting of the Department of Elementary School Principals, in St. Louis, March 25-30.

• • •

The National Commission on Teacher Education and Professional Standards, NEA, has launched a special project keyed to the theme "New Horizons in Teacher Education and Professional Standards." Funds have been allocated by the National Education Association to TEPS not only for sighting new horizons but also for recommending to local, state, and national groups "programs of action that will move directly toward the complete professionalization of teaching."

According to its director, Margaret Lindsey, the purpose of the project is to develop "definitive statements" in the areas of responsibility assigned to TEPS that would serve as guides for the development of action programs at the local, state, and national levels by TEPS and other professional organizations and individuals toward the complete professionalization of teaching.

In the past several years, a few members of DAVI have represented the Department at the TEPS summer conference. Last year the Conference was held in Kansas on the theme "The Education of Teachers—Curriculum Programs." A guide for follow-up

studies by state and regional TEPS groups is available upon request from T. M. Stinnett, executive secretary, NCTEPS, NEA Headquarters. The official report of the Kansas Conference available from the same source, will be off the press about January 1.

We hope that many more DAVI members will start participating in the state TEPS activities. We recently submitted names of a few DAVI members in each state for special invitations to state TEPS conferences to follow up on the Kansas Conference. We hope that when you receive such an invitation, you will accept and be an active representative of DAVI.

We also need to know who among our members could represent DAVI at the 1960 TEPS Conference which will be held in San Diego next summer preceding the NEA Convention in Los Angeles. The theme of the conference will be "The Education of Teachers: Roles of Certification and Accreditation."

• • •

I wonder how many AVI readers are familiar with the activities of NEA's National Commission for the Defense of Democracy Through Education which stands ready upon invitation from local groups to move into any community needing the services of a fact-finding committee.

The functions of the Commission are listed as: (1) To defend teachers, schools, and the cause of education against unjust attacks; to investigate controversies involving teachers, schools, educational methods and procedures . . . ; (2) To gather information about the various individuals and groups who destructively criticize or oppose education . . . ; (3) To investigate alleged subversive teaching and to expose any teacher whose actions are found to be inimical to the best interests of our country; (4) To develop among members of both the teaching profession and the public a better understanding of the issues and problems in the area in which the Commission operates.

In an investigation solicited last fall because of a salary controversy and generally poor morale among the teachers, the Commission noted among other inadequacies a deficiency in audiovisual equipment and services.

"At the time of the study," the report states, "audiovisual equipment supplied to the high school by the school system was limited to one 10-year-old motion picture projector and two antiquated 35mm slide projectors. There was no classroom in the high school suitable for the effective use of motion pictures or slides."

Increasingly in all phases of education, audiovisual materials and equipment become a factor to be reckoned with.—A.L.H.

DOUBLE BARGAIN

If you are otherwise eligible, an NEA membership entitles you without extra cost to become a member of (1) Classroom Teachers, or (2) Association for Higher Education.

Title III Coordinators

Ruark

Morris

Hank Ruark and Barry Morris are both audiovisual specialists who have taken over state jobs as Title III coordinators—in Oregon and Florida, respectively. It may not be pure coincident that these states have programs that serve as outstanding examples. Barry Morris, who chose to let the teachers and supervisors speak for themselves, processed the information beginning on the next page. Before assuming his present post as AV consultant and Title III Coordinator in the Florida department of education, he was audiovisual director for the Asheville (North Carolina) city schools and the source of some of the finest school photos in AVI's files. Hank Ruark needs little introduction to AVI readers, as we point out on page 12 where his report begins.

Service Suspended

After consulting with our editorial board we have decided to suspend the summer school listings this year. As space gets tighter, we question the need for printing this information which is easily accessible in college and university catalogs. However, we remain open to comment.

Photo Credits

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A PUBLICITY ARSENAL FOR NDEA

Almost simultaneously we received the November 9 issue of *NAVA News* and a note from Jim McPherson, both containing pleas for NDEA publicity. Dr. McPherson suggested that DAVI members be urged to work up news articles with photos and captions for local publicity files and to send duplicates of the photos to DAVI headquarters for public information purposes. His letter, he told us, was inspired by a story in the *Washington Post and Times Herald* on the installation of a language laboratory in which the picture captions stated prominently that the new equipment was made possible through NDEA funds

NAVA is asking its members for photos to be used as part of an arsenal in prodding Congress for the yearly appropriation. "What better way to prove the value of these funds," says *NAVA News*, "than to have a ready gallery of photographs showing the classroom use of audiovisuals made possible by PL-864? Photos will arm our friends in Congress with persuasive arguments for the continuation of NDEA funds."

We heartily concur in these suggestions and would further like to call our readers' attention to the fact that the present NDEA period extends for only four years and that (as our cover this month reminds you) we are already into our second year. Agitation for renewal legislation will probably begin at least a year before the present four-year period ends. Thus it seems to us that we have a double reason for collecting persuasive ammunition.

The national office has asked the DAVI Legislative Committee to prepare recommendations setting forth the type of activity DAVI should engage in to insure the continuation of NDEA beyond the present four-year period, these to be submitted to the DAVI Executive Committee. If you wish to contribute to this long-range goal, send your suggestions to Chairman Irv Boerlin at Pennsylvania State University, University Park. Pictures and other publicity materials will be welcome in the DAVI national office.

"Our teachers have been very pleased with NDEA," writes Ted Rosa on page 11. "Their hope is that the state and/or county will not let this program fade away with the cessation of federal monies."

DAVI is also anxious that the program not be allowed to "fade away." But we think our best bet now is to forestall the "cessation of federal monies" Thus we call upon our members to furnish material from the local level to build a publicity arsenal to complement NAVA's. And if we may say so, we think this issue of AVI will be pretty effective as an opening gun.—The Editors.

FLORIDA /

TESTIMONY

SHORTLY AFTER HE WAS NAMED audiovisual consultant for the Florida Department of Education last year, Barry Morris was given the responsibility of coordinating Title III of the National Defense Education Act. That was in November. In December his office released forms and instructions to the counties for filing projects. In January *Standards for Equipment and Materials* and *Guidelines* were released for project planning and in February the first round of projects was approved by the Department of Education. Before the end of February initial disbursements of federal funds to local school districts were made, and by the end of May, 66 of Florida's 67 counties had achieved full participation in Title III. An analysis of the approved projects revealed that approximately 54 percent of expenditures was going for audiovisual equipment and materials.

The type of suggestions made to local planning groups is exemplified by the *Guidelines* for selection and implementation of materials, quoted here in part:

- Equipment and materials should be selected which will provide for pupil experimentation and practice, teacher demonstration, recorded visual and audiovisual presentations, reference, research, related reading, remedial study, and enrichment. Consideration should be given to such items as: films, filmstrips, recordings, projectors, recorders, screens, reference and library books, periodicals, pamphlets, science kits, models, charts, mathematical instruments, laboratory apparatus, demonstration materials.
- In so far as possible, selection should be made on the basis of sample examination, actual demonstrations, or previews with representative classroom teachers participating in the evaluation.
- Equipment or materials which can be shared profitably by several teachers should be placed in the school materials center or in the county center with adequate service arrangements to make them readily and conveniently accessible to all teachers concerned.
- Modifications to buildings should include only such projects as will provide improved facilities for the use and handling of equipment and materials in existing classrooms, laboratories, or materials centers. . . .
- Where classrooms are equipped for using audiovisual aids, they should include facilities for light control sufficient to provide an area for projected images in which the ambient light on a vertical surface can be reduced to less than one foot candle. There should be two or more 110-volt electrical outlets in each room capable of providing 1500 watts of power at all times.
- Funds should not be simply divided equally among the schools nor among the three areas: science, mathematics, and modern foreign languages. Local needs in each area should be carefully considered and priority given to those needs which are deemed most pressing.

TO TITLE III

CONTRIBUTORS

William MacDonald, Science Teacher, Mann Junior High School, Brandon.

Paul Edwards, Instructor in Mathematics, Hillsborough High School, Tampa.

Elizabeth Hardin, Fifth Grade Helping Teacher, Hillsborough County.

Edna E. Parker, General Supervisor of Public Instruction, Palm Beach County

Ted Rosa, Supervisor of Instructional Materials, Board of Public Instruction, Volusia County.

Philip Rosete, Physics-Mathematics Teacher, Jefferson High School, Tampa.

Houston Sapp, General Supervisor, Board of Public Instruction, Nassau County.

● Attention should be given to developing and maintaining a balance in the overall instructional program for all grades of each school.

The following were stated as minimum standards for provision of basic audiovisual equipment. All equipment, it was specified, should be of modern design and maintained in good mechanical condition.

1 16mm sound motion picture projector for each 300 students, or major fraction

1 filmstrip projector with slide attachment for each 200 students or major fraction (in schools of more than 300 students some filmstrip projectors may be without slide attachment)

1 three-speed record player for each 200 students

1 tape recorder for each 400 students

1 opaque projector or one overhead projector for each school

1 portable wall screen or tripod screen for each projector, unless permanently mounted screens are provided in each classroom

1 projection stand on wheels for each projector

1 still camera for each school for making slides and photographs

1 or more electrical outlets in each classroom capable of providing 1500 watts of power at all times

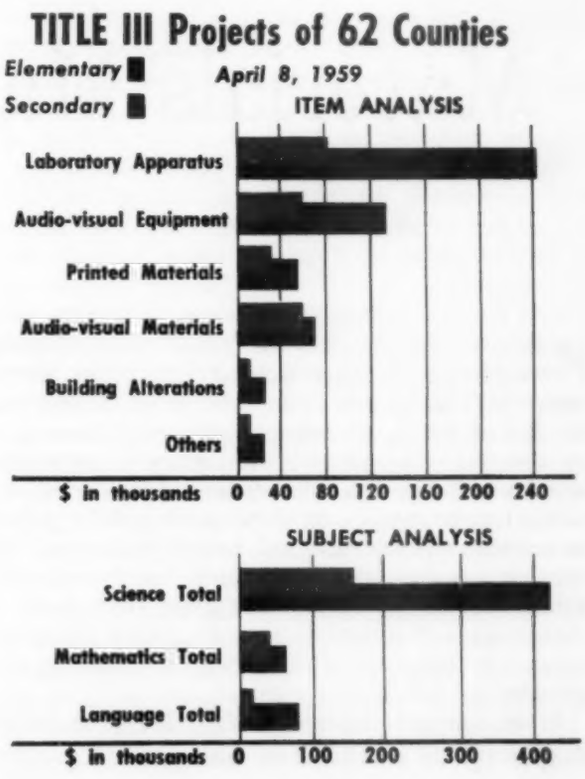
Also available at each school:

- flannel boards, mounted displays, picture file, and similar materials
- facilities for teacher production of charts, models, mock-ups, flannel-board materials, dioramas, demonstration sets, mounted pictures, and photographs
- adequate accessories including power cords, spare reels, lamps, spring belts, cleaning brushes, instruction manual and similar items essential to efficient and convenient utilization
- facilities in each classroom for reducing light level on a sunny day to less than three foot candles; or, as a temporary substitute measure, one standard classroom for each 300 students, or major fraction, equipped for the use of projected aids

Mr. Morris reports that a communications center, supported in part by Title III, has been established within the Department of Education for the purpose of providing advisory and production services to state and county supervisors in graphic communications. The center, still in an early stage of development, has one full-time staff member and one part-time assistant. It has completed some 40 projects for supervisory personnel involving the production of charts, graphs, slides, portable exhibits, and a sound-slide set on the teaching of rudimentary Hindi at the elementary level.

Of the philosophy behind the state-wide program Mr. Morris writes: "We have operated on the principle that each of our 67 local units should be given the greatest possible latitude in planning and carrying out programs for the improvement of instruction and we are keenly aware of the importance of maintaining local initiative and responsibility for such programs. We believe that personnel at the local level are in the best possible position to identify problems and specific needs and to develop appropriate plans for meeting these needs. We believe that this requires a creative effort in which local personnel must involve themselves emotionally as well as professionally if we are to gain full benefit of their ability. In line with these beliefs we are convinced that there will be an infinite variety of solutions to problems at the local level and that we must foster the application of these various solutions so long as they appear reasonable and appropriate."

On the pages which follow are reports from four Florida counties—a testimonial to the above philosophy. Mr. Morris also credits the vigorous leadership of State Superintendent Thomas D. Bailey and NDEA Coordinator Robert D. Gates.



BRIEF FOLLOW-UP after a Spanish lesson over radio in Central Elementary School, West Palm Beach. To expand Spanish program begun by joint community effort is one NDEA project in Palm Beach County. One result: better school-home relations in Spanish-speaking families.

IN PALM BEACH COUNTY

Materials Make a Difference

by Edna E. Parker

PLANNING for the use of funds made available through the National Defense Education Act has been a continuous process in Palm Beach County since the fall of 1958. In keeping with instructions issued by the State Department, the county superintendent and his staff began at that time to consider ways in which four-year plans could be developed for projects in science, mathematics and foreign languages. The decision was soon made to organize county-wide committees composed of representatives from both the elementary and secondary schools. These committees assisted by members of the supervisory staff began to consider the following questions:

What materials are needed for effective instruction in these areas?

To what extent do the schools have these materials?

Which materials are needed most urgently?

Where can these materials be secured and how much do they cost?

After considerable research and study the committees for all areas developed a master check sheet containing lists of materials and equipment necessary for an effective instructional program. Accompanying the list was the purchase price and name of vendor. Space was provided for individual schools to indicate whether the item was on hand or needed, and in terms of a four-year plan, which year that particular item should be purchased. The data obtained from the check sheets were used in planning projects. Although plans were made for four years, changes are anticipated each year

in terms of current conditions. The foreign language projects described below are typical of those planned in all areas.

Conversational Spanish for Elementary Schools

The purpose of this project was to extend and enrich the program of Spanish radio lessons started the previous year at the third grade level through the joint efforts of the Rotary Clubs of Palm Beach County, the school board, the management of Radio Station WSWN, the adult education department, and the vocational school. The Rotary Clubs provided the tapes for the radio lessons and the guide books; the adult education department offered non-credit courses in conversational Spanish for teachers; and the vocational school repaired radios that had been contributed by organizations and individuals.

Before the radio lessons began the teachers who had volunteered to participate in the program were given an opportunity to learn or to review Spanish and to develop an understanding of the aural-oral approach in which listening and speaking activities rather than reading and writing are emphasized. An evaluation based on data from questionnaires indicated that the program was worthwhile. There was evidence to support these conclusions:

- The program of conversational Spanish enabled many children to attain status within the group.
- School-home relations, especially among Spanish-speaking citizens, were improved.
- Children developed greater proficiency in effective listening skills.
- Children's interest in reading stories about Spain and in learning about the customs of Latin American neighbors was stimulated.
- The teachers felt that the program should not only be continued in the third grade but also extended upward one grade per year until eventually Grades 3 through 6 are included.

Through the use of NDEA funds it has been possible to extend the program to the fourth grade this year. The school has purchased tapes and phonograph records; the radio station broadcasts both third and fourth grade lessons as a continued public service; courses in conversational Spanish are offered again for teachers. Thus, with the aid of the radio and phonograph records plus an inservice program, the teachers are successfully teaching Spanish in the elementary schools of Palm Beach County.

At the Secondary Level

The recent shift from emphasis on reading and writing skills to those of speaking and understanding makes it necessary for teachers to have materials which will supplement the textbook. A survey revealed that all 11 senior high schools in Palm Beach County needed audiovisual materials and equipment. Although the language laboratory seemed to be the ideal equipment, the cost made it impossible to contemplate one for each school. However, the committee felt that some equipment should be purchased for all of the high schools, and that insofar as possible this equipment should be selected in such a way that by the end of the four-year period every school would have at least a minimum amount of equipment as a starter. The purpose of the first project, then, was to secure for every school a tape recorder and tapes, phonograph and phonograph records, and a set of eight earphones. In addition to this basic equipment three high schools were able to convert their classrooms into listening laboratories by using earphones and jackboxes. At least one teacher in each of these schools had worked in a language laboratory during the summer session learning how to use the equipment effectively and how to select materials at nominal cost. Assistance from the vocational school in wiring jackboxes and installing equipment further reduced the cost. When not in use this equipment will be stored in a cabinet designed and made by the industrial arts department.

Although a completely equipped language laboratory was the goal to be achieved at the end of four years, it will soon be a reality for one school (where it will serve as a demonstration center). After the first project had been approved Palm Beach County learned that it was eligible for additional funds—funds sufficient for one laboratory. Because of delays in shipment and delivery the laboratory is not yet ready for use. However, students and teachers alike keep a watchful eye on developments "in that room."

It is too early to make an evaluation of the effectiveness of the equipment. However, there are "straws in the wind." For instance, 29 students from one class come to school 20 minutes before classes begin in order to use the tape recorder for practice in speaking and listening. One teacher has purchased her own tape recorder which she keeps at home so that she can listen to the recorded voices of her students and plan necessary corrective measures. The teachers are planning creative ways of using the equipment—preparing tapes for practice and comprehension, securing tapes of native speakers, and sharing their own tapes.

The enthusiasm of the students is reflected in their comments: "I can use the tape for make-up work." "I can get additional practice on the vocabulary that I need." "I am beginning to understand the Spanish-speaking customers who shop at the supermarket where I work."

When the new materials and equipment have been used over a longer period of time, an appraisal of their worth can be made. However, at present the enthusiasm of teachers and students is high enough to predict that materials make a difference in the proficiency of students to speak and understand a foreign language.

NASSAU COUNTY

LISTENING-SPEAKING LABS

by Houston Sapp

"DO YOU THINK it possible that we will have such a teaching device in the next ten years?" These were the words spoken by the foreign language teacher of the Fernandina Beach High School when shown materials on recent developments in language laboratories. The conversation took place in September 1958. September 1959 found Fernandina Beach High School equipped with a listening-speaking laboratory.

As you know, things like this don't "just happen." The cooperation of principal, superintendent, foreign language teacher, salesman, county maintenance foreman, and several college professors was involved. Under the direction of the general supervisor, they pooled their knowledge and know-how to construct this laboratory.

One of the first questions to be answered was "Where could it be placed?" Fortunately, when the new high school building was constructed in 1956 the plans called for an eight-foot-wide conference room for teachers between alternate classrooms. Between the foreign language room and next classroom was just such a room. An ideal location. It could be locked; it contained lock-storage cabinets; it had excellent cross-ventilation.

What equipment was needed, how much, where to get it, and where to go for financial assistance? The project was outlined to the principal and superintendent. Their next trip to Camp Blanding to pick up war surplus equipment suitable for the school system found them looking for possible material for this project. Headsets, jackboxes, and wiring were secured for approximately 75 cents per station.

Information on the National Defense Education Act began to arrive. Since modern foreign language was one of the areas eligible for funds under Title III, we knew we had scored a direct hit. We called in the salesmen and carefully reviewed their equipment from several angles—practicability, utilitarian value, repair and maintenance, and adaptability to our situation. Then we outlined a project for the Title III Coordinator in the State Department of Education. Upon the approval of our project, the green light was assured for the listening-speaking laboratory.

During the summer, the county maintenance foreman constructed the booths. The superintendent, a former science teacher, and the general supervisor spent several afternoons and evenings assembling the headsets and jackboxes, soldering wire splices, and so on. Would it work? Could this type of installation be of value to a teacher? These were questions in everyone's mind. By this time (early August), we had selected and bought a record player and a tape recorder with NDEA funds. Local funds were used for construction of the booths and purchase of headsets and wiring.

When school opened a new foreign language teacher had been employed, Mr. Charles Smith. His enthusiasm for the project, and his willingness to experiment and learn for himself as well as others assured its success. Although a foreign language (Spanish) is taught in three other schools in Nassau County, Fernandina Beach High School was chosen as a pilot school. The lessons learned and experience gained could be transferred to foreign language departments in other schools.

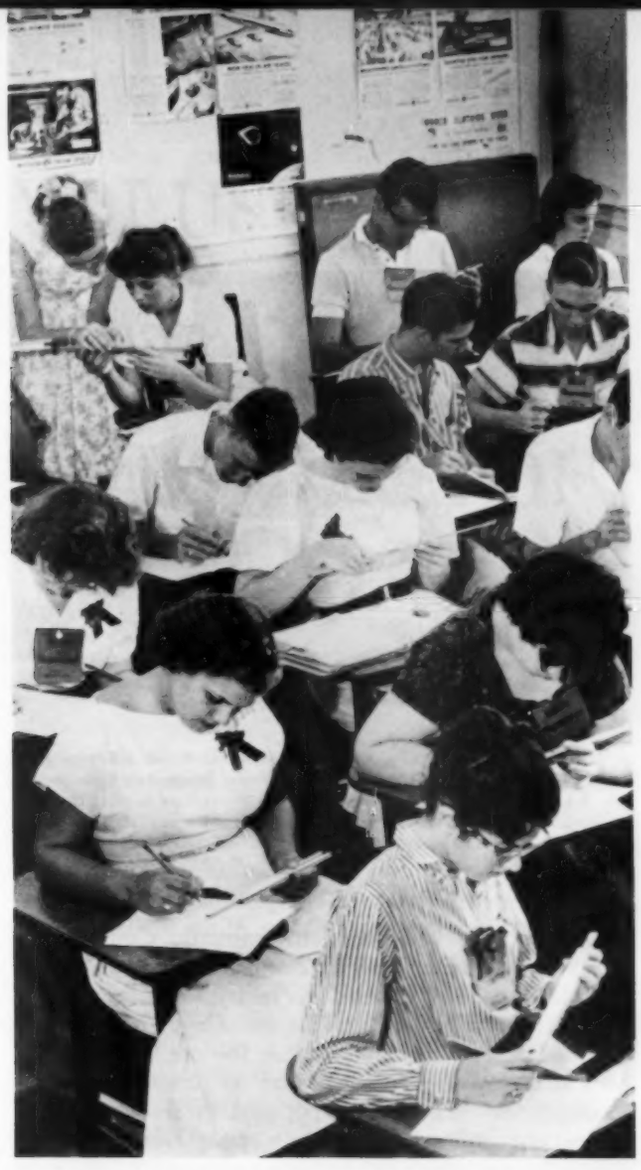
Here are the possible learning situations in the present seven-pupil booth laboratory:

- Listening: to purchased tapes; a pupil's own tape (this can be made in the laboratory); tapes made from radio and other sources; teacher-made tapes, and others
- Listening to records
- Reading and hearing the voice amplified
- Pronunciation practice

How valuable a learning device our listening-speaking laboratory is, we are not able to judge at this time. We know, however, that it is being put to good use—during class time, free periods, before and after school, and by appointment on week-ends.

HILLSBOROUGH COUNTY

Math and Science

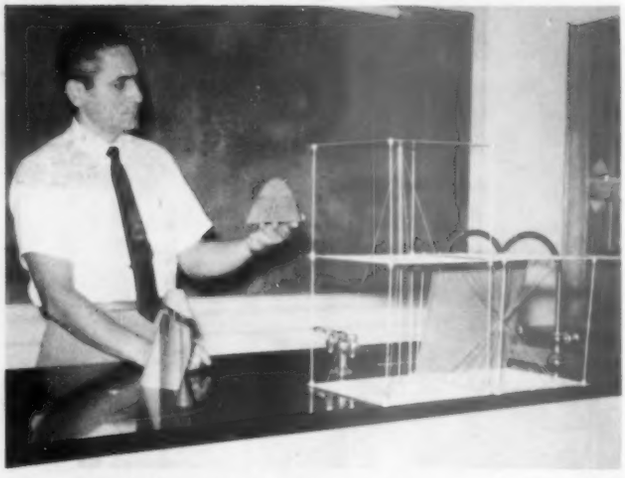


SLIDE RULES are new devices for these 12th-year math students at Hillsborough High School who prepare for using them in trigonometry. NDEA funds supplied these and a giant slide rule for demonstration.

The Giant Slide Rule

ONE OF THE USES to which NDEA money is put at the Hillsborough High School in Tampa is to provide one large demonstration slide rule and a set of regular slide rules. Operation of the slide rule is taught (a) to promote the thorough mathematical comprehension of logarithms by having the students understand the construction of the slide rule and the mathematical reasons for its operation; and (b) to provide students with the proper slide rule techniques needed in many college classes in physics. The operations taught are: multiplication, division, squaring, cubing, taking square roots and cube roots, use of ratio and proportion, the finding of sines, cosines, tangents, cotangents, reciprocals, and the use of the log scale in involution and evolution. A few students learn to use the log log scale on the demonstration slide rule.

—PAUL EDWARDS



A TRUE VISUAL AID: Philip Rosete, math instructor at Jefferson High School, Tampa, demonstrates the Multi-Model Geometric Construction Set. An NDEA purchase, the Model also has many uses in physics and is of particular value to students who have difficulty visualizing problems.

The Multi-Model Geometric Set

WE USE the Multi-Model Geometric Construction Set at Jefferson High School as an aid in teaching plane geometry, solid geometry, and in physics. The set becomes almost indispensable in helping students of plane geometry visualize the problems dealing with straight lines perpendicular to planes and intersecting lines. We have found that most of the difficulties encountered by students stem from their inability to visualize the problems in their minds thus resulting in a failure to deduce a proper proof. Once they see the geometric construction of the problem in its true dimensions, then the proof becomes a relatively simple matter.

This factor is even more pronounced in solid geometry. Most failures here are attributed to the fact that students are unable to visualize the problems. Once the student has worked with the Model he becomes attached to it and this stimulates him into further construction which contributes to his mathematical development. This is in some ways the most rewarding part of this system of presentation. I shall not enumerate the endless number of theorems, postulates, propositions, and corollaries that may be constructed and illustrated by the Model. It will be sufficient to repeat that for the student without the proper perspective of three-dimensional figures this Model is the teacher's best teaching aid.

The Model also has many applications in the physics class. We use it in the study of light and to illustrate the inverse square law. In the study of shadows and light patterns it shows the different projections and planes and proves conclusively the fact that the shape of the shadows will be determined by the angle and position of the opaque plane with respect to the source—which is still another example of conic projections. Problems pertaining to vectors, reflection, the sextant, dihedral, and many others are alleviated by the use of the Model.

The Model can also be used in trigonometry, although to a more limited degree. Since most trigonometry students take either physics or mechanical drawing they are already exposed to the techniques of the geometry.

—PHILIP ROSETE

YOUNG SCIENTISTS learn the difference between chemical and physical change with NDEA materials. Basic science kits have been purchased for all Hillsborough County's 83 elementary schools. The theory in Tampa is that interest in science should be encouraged at an early age.

Basic Science Kits

BELIEVING that interest in science, development of basic science concepts, and application of the scientific method should begin in the elementary grades, the Hillsborough County schools have used NDEA funds to buy kits of basic science equipment for each of its 83 elementary schools. Also purchased as supplements to the kits are books of specific suggestions for children's science experiences prepared by experts in this field. These materials, which will be kept available for the use of every teacher in Grades 1 through 6, include such essential equipment as magnets, magnifying glass, alcohol lamp, prism, tuning fork, compass, test tubes and holder, flasks, rubber stoppers, glass and rubber tubing, thermometer, dry cells, knife switch, electric lamps and sockets, and so on. "Helping teachers" for each grade level are available on request to guide regular teachers or groups of teachers in making the most effective use of these materials.

The children pictured are using NDEA equipment while learning the difference between chemical and physical changes. They see how twigs heated in the test tube undergo a chemical change, whereas salt dissolved in the beaker of water undergoes a physical change. Elementary children need many concrete experiences such as this to arouse their curiosity. This group used the science equipment to perform a series of experiments with common acids, bases and salts.

Another possibility is the study of magnetism and electricity using magnets, iron filings, compass, insulated wire, knife switch, bell, dry cells, and miniature lamps and sockets. No amount of reading about parallel and series circuitry could have been as effective as these actual experiences. Children in one school made a set of street lights which they wired themselves, as well as a miniature stop light for which they built a three-way switch from screws and a strip from a tin can.

A fourth grade learned that warm air occupies more space than cold air. This experiment is performed by closing a flask with a one-hole rubber stopper. A glass tube containing a few drops of colored water is fitted into the stopper. The heat from the child's hands clasping the flask causes the air in the flask to expand and push the drops of water up the glass tube. When the flask cools to room temperature the drops move back down the tube. A thermometer read by the children indicates the temperature of the child's hand and of the air in the room. This is a simple experiment, but the expression on the children's faces and their thoughtful comments as they reason "why" testifies to its effectiveness. —ELIZABETH HARDIN

Microscopy

THE SEVENTH-GRADERS patiently awaiting their turns at the microscope in the illustration are science pupils at the Mann Junior High School. Shown with their teacher, David Crum, they are about to partake in their first practical experience in the science of microscopy. Last year a microscope was to them only another photograph in the textbook with which they were required to become familiar. This year they have access to the ultimate in microscopy. They are using a Bausch and Lomb medical-type microscope equipped with an oil emersion lens which makes possible 50 to 1000-power magnifications. Aside from high power, this microscope has the clarity of lens necessary for detail microscope work generally not available to Junior High students.

Any science teacher will verify the fact that one look through a microscope by these young scientists cannot be replaced by a thousand words in a textbook. The opportunity of studying the wealth of life under the microscope is certain to leave an emotional impression otherwise impossible. This is only one example of the increase in standards of teaching quality at Mann Junior High School since NDEA funds were made available to us. —WILLIAM MACDONALD

"Last year a microscope was only another picture in a textbook."

VOLUSIA COUNTY / ONE PHASE OF TITLE III

THE NATIONAL DEFENSE ACT OF 1958 made possible the purchase of ten record players with 99 earphone attachments and three jacks for the seven participating high schools in Volusia County.

During our planning the teachers felt that equipment and materials which would improve aural comprehension, grammar, and pronunciation were badly needed. While the equipment was being ordered they perused the many catalogs available and selected a large number of records. One company permitted them to "prelisten" but as a rule this was not allowed. Fortunately, all records purchased were completely satisfactory to our personnel.

Experimentation is now taking place in the language classrooms. Music records are played for total class or small group listening. Records which aid the student's pronunciation and grammar are being used in small groups. Students grouped according to their level of language achievement listen to comprehension records such as the Wilmac *Circling The Globe With Speech.*

The activities which I have described briefly were not widespread in our county prior to NDEA because of a scarcity of funds. Our teachers have known about them and have been anxious to include them in their language teaching. Federal aid has made this possible and also, as one teacher stated, "it has made the administrator aware of the importance of modern foreign languages in our 20th-century curricula." —TED ROSA

[EDITOR'S NOTE: *In a letter Mr. Rosa makes this added comment: "This is as specific as I can be at this time. The NDEA equipment and materials were ordered last spring but the majority of the items did not arrive in the classrooms until the beginning of this school year. By next spring I should be able to assemble more complete data on the use of this equipment and material in the participating high schools. Our teachers have been very pleased with NDEA. Their hope is that the state and/or the county will not let the program fade away with the cessation of federal monies."*]

TITLE III IN OREGON

Operation Catalyst

Henry C. Ruark, Jr.

THE TITLE III PROGRAM for the improvement and strengthening of instruction in science, mathematics and modern foreign languages has brought significant stimulation to the audiovisual field in Oregon. Although it is too early to attempt any thorough analysis or evaluation of its impact, a catalytic "trigger effect" is clearly discernible, reaching beyond the NDEA subjects into other educational areas.

There is also a growing interest in cooperative establishment or expansion of county or regional film libraries; a greater awareness among school administrators, teachers, and principals of the need for assistance from a competent audiovisual person, and a broadened acceptance of AV teaching tools as an integral part of any plan to improve instruction.

It has been less than a year since Oregon's Plan for Title III was accepted by the U. S. Office of Education on February 16, 1959. Since then, Oregon has:

- Organized a new instructional services section in the State Department of Education to administer Title III's dual program—acquisition of special equipment and materials, and improvement of supervision in NDEA subject areas; guidance and counseling under Title V, Section A. The new section will also be responsible for other special-service programs of the Department, including school library consultant services and a program to improve curriculum and instruction for the "educationally able and gifted." The latter program was in part an outgrowth of Section A of Title V.
- Completed two application periods for Title III (one covering 1958-59 allocations and a second covering 1959-60 grants) totaling more than $1 million and including 410 applications from 139 school districts in 31 of the state's 36 counties. About 20 percent of expenditures were in the audiovisual field, and indications are that this proportion will increase.
- Set up a second, supplementary, application period for 1959-60 funds, with an estimated 175 applications due for processing after December 10, 1959. (At deadline for this article nearly 300 applications had been requested.) Nearly $500,000 in Federal matching funds is available for this supplementary period.

Hank Ruark will be a stranger to few readers in this field, having taught AV in two Oregon colleges, worked in the center at Indiana University, and served as director of information for NAVA. He is consultant on instructional materials and coordinator of acquisitions for Title III in Oregon.

- Completed reimbursement in many school districts for 1958-59 projects, and begun processing of claims for reimbursement on 1959-60 projects for which acquisitions have been fully or partially completed.
- Planned an application period for 1960-61 funds to take place early in 1960 in order to time NDEA procedures with school budgeting.
- Begun special programs of consultation and in-service work by new subject-area specialists under the "improvement of supervision" phase. The demand for the services of Title III consultants in the three NDEA subject areas and in instructional materials is already heavy although these programs did not get under way until after school started last fall.

There is probably no such thing as a "typical" Title III project, at least not in Oregon. The emphasis on curriculum change and development in the state during the past five years has brought about an understanding of the need for general improvement in instruction and has had a great deal to do with the acceptance of NDEA in Oregon. Most project applications submitted were pretty well tailored to meet local needs, with emphasis differing markedly from project to project and with the inventory of requested equipment differing just as markedly.

As in many states, the science area with its special needs for equipment drew much attention. Out of total allocations of $1,009,000, science activities were granted $631,000. Science appears 305 times in Oregon projects.

Mathematics appears 162 times during the first two application periods (1958-59 and 1959-60) with $194,000 allocated. Foreign language grants totaled $184,000 with 92 activities under way in the same two periods. About 40 of these deal only with materials.

Many projects in science, especially for elementary schools, were confined to so-called Minimum List items in 1958-59 and expanded to acquire other and more specialized or complex equipment in 1959-60. The Minimum List items are considered the basic types which should be readily available before additional equipment is acquired. In mathematics there has been a fairly heavy demand for manipulative materials in the elementary grades with some emphasis on models and more specialized equipment at the secondary level.

In Oregon the approach to language teaching equipment has tended to be conservative, slow and rather carefully planned; many districts are still working out

the details for language laboratory installations, making sure that the facilities they install will fill their needs and provide for reasonable expansion and change. Thus many of the early projects requested "building block" equipment, which can be integrated into functional use with more complex equipment later, and which provides better opportunity than in former years for teachers and students to familiarize themselves with equipment before making the transition.

One of the most interesting Title III developments in the state is the cooperative program for televised Spanish instruction taking place in Bethel-Eugene-Springfield, a three-community area centered around Eugene which is the home of the University of Oregon. In these three districts a large percentage of foreign language teachers in Oregon get their practice-teaching experience. The TV instruction, at sixth-grade level, is supplemented with classroom work by both the classroom teacher and the special TV instructor.

Varying Stages of Language Equipment

In addition, all three school systems are making varying installations of electronic equipment for use at secondary and elementary levels. At Bethel the state's first Level III language lab (listen-speak-record) is in daily use at the Willamette High School. In Eugene and Springfield, listening-corner equipment and materials are employed on an expanding scale, and recording and playback devices are also used. Depending on needs and experience, other levels of language labs may be installed in each community. There are, in fact, 12 Level III installations, or modifications thereof, in various phases of acquisition or installation in the state.

It has been considered policy throughout the Oregon effort under Title III to stress the interrelatedness of all types of materials for every subject. As a result of this policy in part, most Title III projects have included requests for many types of supplementary printed materials, and in general it appears that these resources have also been strengthened in many projects.

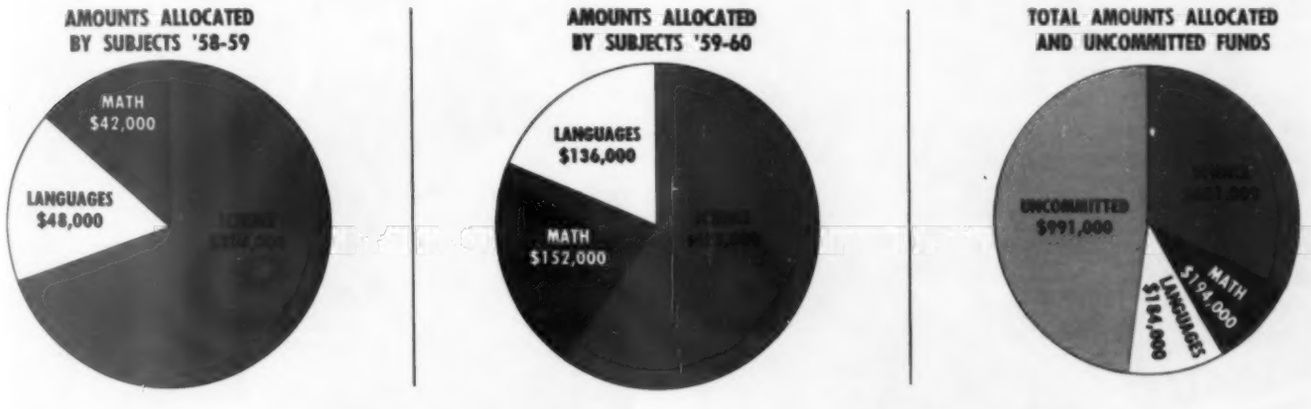
Oregon policy regarding audiovisual materials and equipment has specifically been kept as flexible as possible. No "basic list" or suggested set of equipment or materials has been set up, and the official *Guide For Oregon Projects Under Title III, NDEA* carries this statement:

> Because the provision of audiovisual equipment at the local level is so closely connected with other factors of importance in good utilization of such equipment (i.e., supply and distribution of materials, teacher experience, interest and readiness for equipment application, light control facilities . . . etc.) quantitative standards for specific pieces of equipment have not been established. *Each item of audiovisual equipment may be individually justified in whatever quantity can be shown to be essential to the individual project . . .*

In addition, each subject-area section of the *Guide* carries a statement pointing out that the NDEA specifically recognizes and emphasizes the use of the audiovisual media; still further, separate standards for basic types of audiovisual equipment are contained in the *Guide*, and light control specifications are also written into the standards for remodeling. Facilities for light control are considered as "special equipment" in some cases where remodeling is not necessary, and where it would not serve the purpose of the Act to consider these essential means for audiovisual instruction as "remodeling."

Another area in which there is increasing interest and activity in Oregon is that of local preparation of materials. One particular project will serve as an example; the high school mathematics instructors in the Beaverton school system are working together to produce visualized units for the overhead projector, making use of its unique qualities to bring new insight into special areas of this subject. The materials for the project are being supplied by the school district; the projection equipment has been acquired under a Title III grant. The school system has also allowed worktime for the math instructors under a special summer program. Although the project is still in the beginning phases, it appears that some significant and interesting materials may result. The materials and experience gained will be made available to other Oregon schools when ready.

Some of the larger school systems have made an interesting use of Title III by proposing projects for the acquisition of one or several items of special equipment for each school. For instance, one project stipulates a considerable number of micro-projectors, portable laboratory tables, and similar equipment for each elementary and junior high school. Another similar project in the field of audiovisual materials provides solely for a large number of new films and filmstrips in science, mathematics and modern foreign languages. Title III has also served as impetus for a growing number of joint projects, involving from two to 30 individual school districts, sometimes in more than one



county. Most of these projects are centered on specialized materials, often films, filmstrips, recordings, and printed supplementary materials.

One of the most important phases of the Title III program in Oregon is just getting under way; that is the work of special consultants in the NDEA subject areas and in instructional materials. Oregon has long practiced general supervision, and has an interesting history of effective action in this area. Now the Title III program has made available a well-trained and skilled specialist in each NDEA subject area—math, science, and foreign languages. The primary responsibility of each specialist is simply the statewide improvement of instruction in his subject area. Each of the consultants is available to school systems for work with administrators, principals, teachers, and others. Each is maintaining close liaison with professional subject groups, with administrators at all levels, with institutions of higher education (especially teacher-training centers) and with groups at the national level. Each devotes full time to his particular subject area, and is also the chief resource person for the Department of Education. Each will be involved in curriculum development and planning, preparation of publications, and the wide variety of committee and group work on which these types of activities are based in Oregon.

In the instructional materials area, the Oregon Audio-Visual Association is working closely with the Title III administration. One phase of Association activity undergoing expansion is the basic one of providing information and services; plans are underway for an action group which will carry out a continuing program to make sure that school administrators, school board members, the public generally, and others concerned with Oregon education have at their disposal full knowledge of the function and importance of audiovisual instruction.

A basic step to bring into reality the great potential of audiovisual instruction in every state is participation by the local audiovisual person in the planning steps for Title III projects. In Oregon this fact is becoming more widely recognized not only as it pertains to NDEA but any kind of planning for improvement of instruction. The great danger is that the AV person will not get this opportunity to participate, unless he has proven himself by previous work with subject-area administrators, teachers, principals, curriculum people, and through his own audiovisual activities. Undoubtedly, what happens at this crucial local level can do more to determine audiovisual progress through Title III than nearly any other factor in the program.

What has happened in less than one year in Oregon may well set the pattern for many future years to come, within or without NDEA. The most important developments can be summed up thus:

Title III has brought about significant new activities of great promise, both at the state and the local level.

Large sums of money have been expended on special equipment and materials, with a growing proportion going to audiovisual tools and media specifically.

The attention of administrators and teachers has been caught and directed specifically to audiovisual media as integral parts of key plans for improving instruction.

Growing interest in cooperative development of larger supplies and a broader range of audiovisual materials closer to the point of classroom use is now in evidence and will probably result in expanded cooperative activities.

State-level and OAVA activities in the audiovisual field are sure of continued expansion during the next few years to meet the increasing demands for information, consultation, and in planning for increased audiovisual programming in Oregon schools.

LABORATORY IN USE: David Curland, instructor at Willamette (Oregon) High School, teaches a Spanish III group while students of Spanish I (not shown) work with listening and recording equipment in booths to the left. Installation of language equipment is varied in the state.

VISITING EDUCATOR: Herbert A. Smith, U.S. Office of Education, makes his first visit to an operational language laboratory at the Willamette (Oregon) High School. Adjusting the volume is Paul Arriola, foreign language consultant for the Oregon State Department of Education.

TITLE III IN BRIEF

CONTRIBUTORS

R. B. Chandler, Coordinator of Title III, NDEA, Ohio State Department of Education.

C. E. Costley, Director, Teaching Materials Department, Oklahoma City Public Schools.

Earl Cross, Administrator, Defense Education, Oklahoma State Department of Education.

Craig K. Fullerton, Assistant Superintendent in Charge of Instruction, Omaha (Nebraska) Public Schools.

Claude W. Hass, Consultant, Bureau of Audio-Visual and School Library Education, California State Department of Education.

Thomas S. Narus, NDEA Coordinator, Pennsylvania Department of Public Instruction.

OKLAHOMA: SUPERVISORY FEATURES

SUPERVISION OF TITLE III in Oklahoma is a part of the general supervision program of the State Department of Education. We have not employed so-called "specialists" in the fields of science, mathematics, and modern foreign languages. The new people we employ, however, must have teaching fields in one or more of these areas. Moreover, most all of our assistant directors of instruction, the group that provides supervisory services to schools, have majors in one or more of these fields. Several of these men have four or more college hours of credit in audiovisual education. In addition, all of them are experienced teachers, successful administrators, and hold a master's degree or above.

We have at least two reasons for our policy on general supervision: The first one is that this is the pattern of supervision throughout the State Education Department. The expansion of supervisory services under Title III of NDEA lends itself to conformity with the established method. Secondly, we look upon Title III of the Act basically as an administrative responsibility. The most important activities to be performed are submitting and approving projects; disbursing funds; selecting and purchasing items of equipment; making necessary physical arrangements for housing and using equipment; expanding curricula; and organizing and conducting programs for improved proficiency of teachers. Such activities certainly involve administrators as well as teachers.

Another feature of our program somewhat unlike that of most states is that school districts having approved projects are paid in advance. Thus ours is truly a matching program rather than one of reimbursement. Our reason for this method of payment is that many of our local educational agencies cannot participate in projects until federal funds are received. Paraphrased, these districts have one-half the price of a project but they don't have the other half until we pay them.

All titles of PL-864 which are the responsibility of the State Department of Education are under one administrative head. This feature is perhaps not too unusual among the states. —EARL CROSS

OKLAHOMA: LANGUAGE EQUIPMENT

AS A RESULT OF THE GROWING EMPHASIS on conversational efforts and broader cultural understanding, the Oklahoma City Schools have for some time used radio and television facilities in language teaching. For the past three years, support has been forthcoming under a Ford Foundation Grant. This program has been largely voluntary at the elementary level. Projects and materials have been evaluated in "pilot" or selected schools which furnish the basis for the currently enlarged program.

A program which involves the electronic application, or laboratory approach correlated with television teaching, is now a reality for all third grade classes in either French or Spanish. The classes are supplied with television receivers, filmstrips and slide projectors, tape recorders, and record players. Tapes correlated with television teaching are furnished each class, and other approved records may be used.

Much the same condition exists in selected junior high schools with the addition of a regular program such as revised Berlitz, Encyclopaedia Britannica (Gloria & David) and others furnished according to the teacher's choice. Listening tables with monitor recorders are also used.

With the aid of Title III funds the installation of full-fledged language laboratories is now in progress in secondary schools. Five schools have 36-station installations which are equipped with teacher control console and a battery of recorders to cover ten channels with individual station monitor and speech facilities. The equipment selected has been favorably accepted by the many users. A clinic held October 23, jointly sponsored by the State Department of Education and the local administration, marked the opening of these installations.

Teachers in these situations are using recognized program materials, such as Wayne State French (*Images de France*), revised Berlitz, or other acceptable

materials they themselves have developed. Several of them were in language institutes during the summer of 1959. Some teachers are finding that text correlated records, such as *El Camino Real,* plus tapes developed in class are satisfying their needs.

The immediate results of the program which has evolved during the past three years are: (1) the involvement of many more pupils; (2) the use of multiple media; (3) change of methods with a merging conversational approach at all grade levels; and (4) a tremendous increase in the use of materials and equipment.

Judging from local evaluations and other sources it appears that after another year it will be possible to do much to shape curricular development in terms of laboratory methods. —C. E. COSTLEY

OHIO: AN EARLY START

IN OHIO, preparation for participation in the Title III program ante-dated the National Defense Education Act by eight years—getting its start when Clyde K. Miller was appointed director of the division of audiovisual education for the Ohio Department of Education.

In cooperation with local school administrators and teachers' associations, Dr. Miller scheduled demonstrations to acquaint teachers, supervisors, and schoolboard members with current equipment and materials for audiovisual instruction. Over 50,000 persons have attended these demonstrations in the past eight years, creating a great demand for teaching aids. A large percentage of Title III funds has been used to reimburse schools for the purchase of equipment and materials displayed during these demonstrations. (See pages 206-208 October 1958 AVI for detailed account of Dr. Miller's activities.)

Since September 1959 a Title III center has been set up by Jerry Saunders, assistant director of audiovisual education in Ohio, where provisions of the *State Manual of Procedures under Title III* are explained in detail. The center assists teachers and administrators working on Title III projects in the selection of equipment and materials. Thus applications for approval are expedited from the area of the demonstration center.

Special attention to modern foreign language projects is provided by LaVelle Rosselot, who has directed the language laboratory of Otterbein College for the past ten years, and now serves as a consultant for the Ohio Department of Education. Dr. Rosselot leads discussions of teaching methods and equipment and schedules visits to schools to assist in the inservice training of language teachers. The increase in the number of language laboratories in Ohio has been gratifying.

Area conferences of school administrators have provided opportunities for panel discussions of the financial aspects of Title III and the interest stimulated is reflected in the approval before November 1, 1959, of projects costing over $2 million. Greater participation is expected during 1960 because the cost of Title III projects is written into the budgets of local school districts. —R. B. CHANDLER

CALIFORNIA: EFFORT ABOVE NORMAL

THE STATE OF CALIFORNIA, through the Department of Education, operates its plan for strengthening instruction in science, mathematics, and modern foreign languages on the fundamental principle that only projects indicating action above and beyond a normal effort will produce the outcomes desired by Congress when they enacted the National Defense Education Act of 1958. Consideration was given to this principle in the selection of 826 projects for approval during the fiscal year 1958-59. The projects were evaluated in these terms:

1 Values of the project to the local district and to other districts

2 Degree to which the project will actually improve instruction for the students in the classroom or laboratory

3 Costs of the project in relation to potential improvement of instruction and number of students and teachers affected.

4 Needs in the particular situation

5 Potentials for stimulating improvement of learning

6 Potentials for continuance of improvement in learning

7 Consistency with long-range planning

8 Competencies of local staff to utilize the equipment

9 Provisions for proper installation, care, and maintenance of equipment

10 Numbers and types of pupils to be served

11 Personnel to be reached through related inservice education

12 Relationships of the project to teacher education

13 Relevant projects successfully completed.

In approving projects, the State Department of Education endeavors to maintain and develop a well-balanced, diversified state program including all levels of the school system and all subjects specifically covered in Title III.

What is believed to be a unique technique is utilized in the evaluation of projects under the California state plan. Teams of evaluators are brought in from city, county, and school district offices to read the projects and make recommendations. There is a team at each level — elementary, secondary, and junior college. Working closely with these teams, personnel from the Bureau of Audio-Visual and School Library Education carefully screen the equipment and materials lists contained in the application. Through this screening the state is able to advise the districts when specified equipment or materials will not fulfill the objectives stated in the application. On the basis of these team recommendations, the chiefs of the Bureaus of Elementary, Secondary, and Junior College Education recommend approval to the state superintendent through the chief of the Division of Instruction.

It is believed that the team approach serves three distinct functions. First, by bringing the team members into the Capitol the field point of view is obtained and the feeling that the State Department of Education arbitrarily makes approvals is eliminated. Secondly, the team members return to the field, disseminate information, and build better understanding of why certain decisions are made. Finally, a highly qualified staff is available without maintaining a large staff continually in the NDEA Bureau.

These features have served well in California to place responsibility for improvement of instruction at the local or district level where it belongs and at the same time to provide for state-wide leadership, guidance, coordination and evaluation. —CLAUDE W. HASS

PENNSYLVANIA: REGIONAL CENTERS

PENNSYLVANIA HAS TAKEN ADVANTAGE of the National Defense Education Act to establish regional audiovisual libraries and instructional materials centers throughout the commonwealth. It was necessary first to develop legislation to provide a legal basis for joint operation of the libraries by counties. It is anticipated that a maximum of 20 to 22 centers will ultimately be established to serve the state's 67 counties. The legislation permits each county board of school directors to enter into an agreement for establishing a library either within the county or in conjunction with one or more other counties. In the event that a county does not establish a library, the legislation provides that one or more school districts may establish and operate a center with the provision that additional school districts may be admitted.

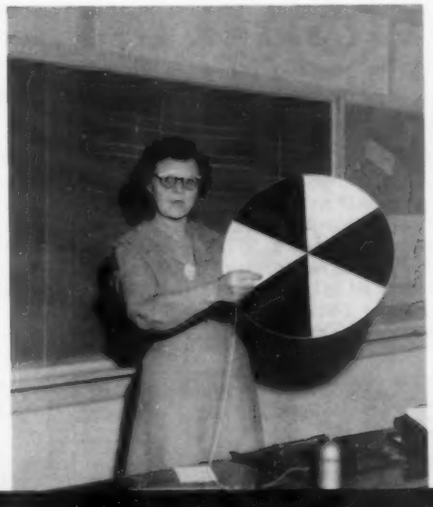
Perhaps an excellent example of the type of regional film library established under NDEA provisions in Pennsylvania is the Delaware-Chester Joint Film Library. This library was approved in September and will serve approximately 45,000 elementary and 29,000 secondary pupils in two counties. During the first year the library will purchase 600 or more films on Title III subjects which will be made available to 56 school systems in both counties. An executive committee of seven members representing participating school systems on a rotating basis adopts the over-all policy and budgeting procedures for the center's operation. The greatest distance between any center and school served is 28 miles. Delivery and pickups are made by station wagon and car at least once per week. This is supplemented by distribution via school buses, itinerant teachers, and administrators. There are 113 elementary and 37 secondary schools participating in the program. The subscription fee is 50 cents per pupil for the present school year. Reimbursement is currently being paid at the rate of 50 percent for motion picture films eligible under Title III.

Currently there are four regional film libraries approved in the commonwealth, with four additional applications being processed. It is hoped that about six additional centers will be approved during the 1960-61 school year. —THOMAS S. NARUS

OMAHA: UTILIZATION SESSIONS

TEACHERS of junior high school mathematics and science in the Omaha (Nebraska) Public Schools have been receiving suggestions as to how to use equipment obtained under Title III. A series of meetings have been planned for this purpose with all junior high mathematics and science teachers and principals in attendance. The discussions were recorded on tape and a condensation furnished to each teacher in mimeographed form.

A sample of each type of equipment was displayed on a table. Teachers demonstrating the equipment were asked to identify the piece of equipment, explain where in the curriculum it should be used and give some specific suggestions for utilization. Attention was also given to storage and care of the equipment to prevent breakage, damage, or loss. It is hoped that these discussions will stimulate the staff to exercise imagination and resourcefulness in the effective use of audiovisual equipment and materials. The response of teachers has been favorable. —CRAIG FULLERTON



Showing teachers how to use equipment is part of the Title III program in Omaha. Left to right: Harry Duncan, Benson High School, demonstrates how an entire class can study microscope slides at one time through use of microprojector. Esther Wick, Technical Junior High School, shows how the relation between diameter and circumference can be proved by use of the simple device pictured. Allison Ruby, also Technical Junior High, holds a model of a human heart as she demonstrates teaching with biology models. The elementary sextant is explained by Joe Hanna, George Norris Junior High. Teacher response has been good.

THINKING

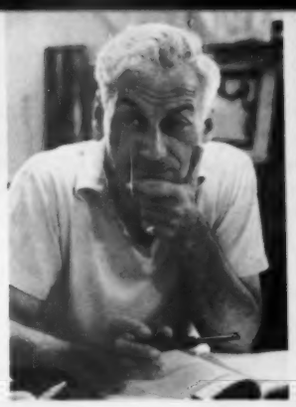
WHO SHOULD DO RESEARCH? Should there be a basic set of rules for research? Is evaluation research? Is there a place for conducting "research for research sake?" What are the levels of research? What makes basic research? These questions were raised and discussed by Roy M. Hall, assistant commissioner for research, U.S. Office of Education, as he opened the fifth annual Lake Okoboji Audio-Visual Leadership Conference last August in Milford, Iowa.

Although definitive answers were not a product of this conference, some 51 audiovisual specialists from 24 states and three countries spent five full and provocative days in thoughtful consideration of questions such as those above and how they relate to the audiovisual field. These photographs are an attempt to capture something of the spirit of the deliberations and to illustrate what veterans of former Okojobi meetings consider "the best of the five."

In addition to Dr. Hall's paper, "Research—Our Responsibility," the opening session included a comprehensive report by William Allen pointing out areas where research has been conducted in the audiovisual field and areas where it is needed. This was followed by Wesley C. Meierhenry's paper, "Needs, Types and Quality of Research."

Among special reports presented throughout the confer-

Top picture (l to r) Arthur A. Lumsdaine, American Institute for Research, Pittsburgh; William R. Fulton, chairman, Okoboji Planning Committee; James D. Finn, president elect of DAVI; and Kenneth D. Norberg, Sacramento State College. Left center is Ford Lemler, University of Michigan, and right center, Wesley C. Meierhenry, chairman of the DAVI Research Committee. Lower left, Alvin Cogdill, University of Texas.



About Research

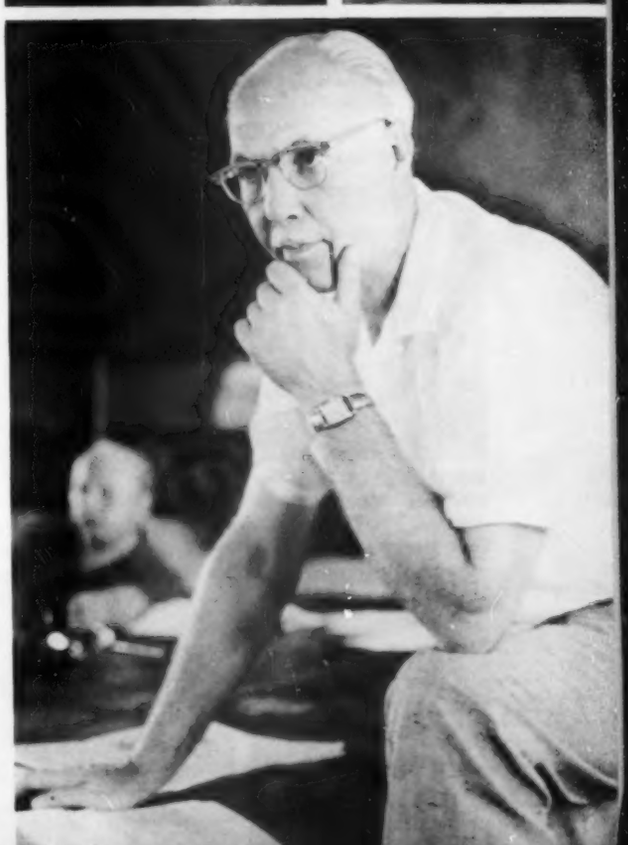
by Robert C. Snider

ence was one by Kenneth D. Norberg, "A Hybrid Classification of Studies Under Title VII." Dr. Norberg presented data from a content analysis of the 69 approved Title VII research projects using five categories and sub-categories and pointing up certain trends in present research activity. His major research categories were: media studies, developmental production studies, implementation studies, teacher training studies, and basic research studies.

A substantial amount of the conferees' time was given to consideration in small groups of three basic problem areas: "Ways to Improve Research and Experimentation," "Dissemination," and "Identification of Areas of Needed Research." At the conclusion of the conference, each group reported on its deliberations.

A limited number of copies of the *Summary Report, Fifth Lake Okojobi Audio-Visual Leadership Conference 1959* are still available from Lee W. Cochran, Extension Division, State University of Iowa, Iowa City.

Top left, Horace Hartsell, Michigan State University, shares notes with Louise Brown, San Bernardino, Calif. Top center, Arthur A. Vesselo, London, England (representing European audiovisual groups). Lee Cochran is pictured with camera. Second row left, William Allen, editor, AVCR. *Group picture in upper center includes (l to r) Herbert R. Jensen, Greenwich, Conn.; Stanley McIntosh, Teaching Film Custodians; Emma Fantone, Montclair State College, N. J.; Frederick A. White, University of Wisconsin; and Kenneth R. Berry, Wheaton, Ill. At the right center of this page are Barry Morris, Florida State Department of Education (left) and Raymond V. Wiman, San Francisco State College. Lower right, Dudley Parsons, Minneapolis Public Schools. (The photographs of Alvin Cogdill, William Allen, and the group picture on this page were made by Lee Cochran. All other pictures are by Robert C. Snider who produced this illustrated report on Okoboji.)*



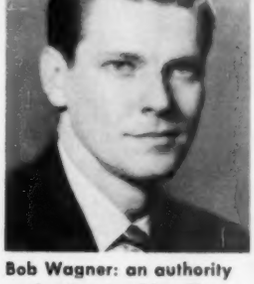
VISION, WISDOM, AND EXPERTISE

Two sages at Cincinnati—Keynoter Melby and Edgar Dale

Lumsdaine: he will take the mystery out of teaching machines

John Ivey: he is sure to bring a bold plan

Jerry Winfield: his crusading spirit is infectious



Bob Wagner: an authority on foreign teaching films

Erich Bauer: an authentic European viewpoint

Fresh from foreign missions—Foy Cross and Francis Noel

AS THIS ISSUE GOES TO PRESS, President Eisenhower has just embarked on his world tour to soften opinion towards an eventual rapprochement with the USSR. Two months hence when DAVI meets in Cincinnati, Keynoter Ernest O. Melby will be raising questions pertinent to this very event, thus placing before the Convention—in educational context—some of the foremost issues of the day.

For two decades we have had a strategy for war, Dr. Melby will say. What is to be our strategy for peace, and what are the educational implications thereof? Are we preparing for the time when we shall *not* be the world's most powerful nation? Can our present luxury loving materialism help us to our best level of cultural development or even survival? Can we win the hearts and minds of underdeveloped countries with our present cultural attitudes? Have we educational proposals and programs to solve such problems as those raised by Little Rock, the steel strike, the Michigan legislature? How is education to cope with the current wave of conformity?

Dr. Melby sees indications that present American education is not as effective in shaping attitudes and behavior as we like to think. Have we any new dynamic proposals, he will ask, for developing more effective education? What changes are needed—in content and in teacher education? Can the new media, the new techniques give us an education of new power to influence the attitude of men towards one another?

Active in Civic Affairs

Professor of education at Michigan State University, Dr. Melby is a thoughtful educator whose concern has often been with societal change and its effects on education. His professorial career goes back to 1934 when he was assistant professor, and later associate professor, at Northwestern University. During his 11 years as professor and dean of education at New York University he was active in civic affairs as chairman of Mayor Wagner's Advisory Committee on Education, as president of the New York State Citizen's Council, as member of the Board of the National Labor Committee, and as member of the Public Education Association of New York City.

Dr. Melby (like Edgar Dale who will also be on the program at Cincinnati) inspires the kind of confidence that is reserved for men whose judgment is seasoned by accumulated wisdom, yet whose vision keeps them constantly grappling with problems of the future. He is a fitting keynoter for DAVI as the organization becomes more and more involved with the education of the future and the application of mass media and technological devices to learning.

New to DAVI, John Ivey will in his own way contribute equally to the spirit of the 1960 Convention. Those who have heard him speak will recall his impatience with "hairsplitting" and inaction in the face of mounting educational problems. Dr. Ivey is convinced that the very survival of democracy as we know it depends on "generating the intellectual competency" of the nation's best brains. Heretofore in this country education in quantity has been an enemy of quality education, Dr. Ivey has said. He is not advocating better education for fewer scholars, however. He raises the interesting point that certain major assumptions in the operation of American education which make numbers the enemy of quality must be changed.

As president and executive officer of the Midwest Council on Airborne Television, Dr. Ivey is in the forefront of those taking action now to bring superior teaching to the greatest possible number of students through the broadcast media. As president of the Learning Resources Institute, which is set up to investigate *all* learning resources, he necessarily takes an even broader view of upgrading American methods of instruction. This is the background from which Dr. Ivey will speak; readers must judge for themselves whether they can afford to miss the second general session of the Convention.

Teaching machines have been "in the air" for some time. This year they will be both expounded in detail and demonstrated at the DAVI Convention. A. A. Lumsdaine, program director for training and education at the American Institute for Research, Pittsburgh, will conduct a session in which he will introduce several other specialists in the teaching machines field. Among them are Lloyd E. Homme, member of the psychology faculty at Pittsburgh University and co-founder and president of Teaching Machines, Inc.; Norman A. Crowder, who has developed a number of self-instructional devices and is currently associated with an industrial firm in California; Douglas Porter, who has been working with B. F. Skinner at Harvard; Dr. Porter's assistant at Harvard, Helen M. Popp; and John Barlow, head of the psychology department at Earlham College. Jim Finn will also be on the program.

Dr. Lumsdaine, who is at present editing a manuscript on teaching machines to be published by DAVI, has indicated that non-technical language will be adhered to in the discussions which primarily will treat the nature of programmed materials. Dr. Lumsdaine will introduce the session with slides illustrating several makes of teaching machines, a number of which will be demonstrated in Exhibit Hall. Here is a chance to clarify those vague notions, misconceptions, and apprehensions about teaching machines. As Dr. Hyer says on page 32: "Instructional technology is here to stay. Neither our wishing nor fighting will turn back the tide."

The third general session and subsequent concurrent session will bring to the attention of DAVI members the international aspect of AV which has been growing in importance for several years and which will be timely indeed in view of the keynote address. Dr. Dale who returned last September from a European tour including both Turkey and Israel will be main speaker followed by a symposium on "international cooperation in the exchange of ideas on audiovisual materials, equipment, information, and personnel." The session following on "specific opportunities to participate in overseas programs" will bring to the Convention the country's best informed source on the use of AV to combat illiteracy. Gerald F. Winfield, head of ICA's Communication Media Staff (who presides over this session with A. J. Foy Cross) has traveled to all parts of the globe, mainly in underdeveloped areas where the function of his organization is to cooperate with local governments to give native populations the essentials of learning, and thus a chance for a better life. When it comes to communicating the human values striven for by dedicated men serving in all parts of the world with this particular branch of ICA as their common bond, Dr. Winfield has no peer—as his audience at the Convention will learn. Dr. Cross has recently returned from South America where he combined a sabbatical leave from New York University with service to the U.S. Education Commission in Peru. Dr. Cross has also participated in educational programs in the Philippines.

Some Unique Contributions

Participants in Dr. Dale's symposium will include Francis Noel, fresh from a tour of duty with the Technical Cooperation Mission in New Delhi; Robert Wagner who has represented the United States at the Cannes Film Festival and the International Congress of Schools of Cinema and TV, and who has served on two government missions to South American countries; and Erich Bauer, head of the German Department at DePauw University. As a native Austrian, Dr. Bauer will be in a position to bring to the symposium a true European viewpoint. Dr. Bauer was instrumental in founding the Austrian Society for Audiovisual Education as well as its official publication, *AVISO*.

These are the men and events that will figure prominently in Cincinnati. As surely as does Dr. Hyer's current editorial series, they point to the "educator of tomorrow."

Second PAVATE Award Goes to Charles Hoban

Hoban (grinning); Oxhandler (grinning and pinning)

Charles F. Hoban, Jr., research professor of education, University of Pennsylvania, was presented with the second annual Honor Award by the Pennsylvania Audio-Visual Association for Teacher Education, at a banquet Friday, October 30. The occasion was a joint conference of PENNAVID and PAVATE, at the Hotel Webster Hall in Pittsburgh. (A. W. VanderMeer was the recipient last year.)

In addition to an inscribed key, Dr. Hoban received $500 worth of films or filmstrips from McGraw-Hill and EBF, these to be distributed to any group chosen by Dr. Hoban other than commercial film libraries. Anna L. Hyer, DAVI, addressed the group Thursday afternoon, exploring the ramifications of the National Defense Education Act as it affects audiovisual instruction in Pennsylvania.

Howard "Bud" Thorne, Midland, was elected president of PENNAVID while Nicholas R. Cericola, Easton, was made vice-president and Mary Renner, Upper Darby, was re-elected secretary treasurer. Samuel Curtis, assistant professor of art, State Teachers College, Cheyney, was elected president of PAVATE. J. Robert Murray, associate professor of education, State Teachers College, Indiana, is the new vice-president. Eugene K. Oxhandler, assistant professor of audiovisual education, Penn State, was elected executive secretary of both organizations.

The next joint meeting will be sponsored by PAVATE in conjunction with Schoolmen's Week at the University of Pennsylvania, during October 1960.

Southwest Stirrings

Strong plugs for membership in both the state organization and DAVI punctuate the New Mexico *Newsletter* for October 26. Roy A. Frye, editor (and DAVI state membership chairman) is calling for one new member for the New Mexico Audiovisual Association from every school building in his state and one new member for DAVI from every school system. Mickey Bloodworth represented DAVI at New Mexico's fall meeting, appearing twice on the program. In a sectional meeting she gave a slide presentation on the "audiovisual director," illustrating his good traits as well as weaknesses commonly found.

Using slides again at the dinner meeting she introduced her audience to members of the DAVI national staff. "Because of this talk," Mr. Frye reports, "we will all feel greater interest in DAVI in the future."

Preceding Mrs. Bloodworth at the dinner meeting, J. C. Ewing reported on the windowless schools at Hobbs, citing these advantages: year-round air conditioning, dust free, total darkening possible for AV purposes, lack of distractions, more bulletin and chalkboard space, elimination of sun glare on blackboards, and lower heating bills. (Windowless schools are now in use in three New Mexico cities—Hobbs, Roswell, and Artesia.)

Mrs. Richards of the audiovisual department, Albuquerque public schools, described a method of darkening with blue denim—an inexpensive means proving successful in the Albuquerque schools. Others on the program during the sectional meeting were Mrs. Rose Jeanne Jones, director of KANW-FM, Albuquerque, who spoke on the use of tapes, and George McBane of the New Mexico Department of Education, who discussed Title III.

New officers for the New Mexico association are: president, George Hall, AV director, Alamagordo public schools; vice president, Marion Kline, AV director, Highlands University, Las Vegas (New Mexico); and secretary-treasurer, Mr. Frye who is audiovisual director for the Roswell public schools.

Canadian Report

E. F. Holliday, outgoing president of the Canadian affiliate, writes that CAVA recently marshalled a sufficient number of members at a conference in Montreal to effect a slight change in the organization's name. By majority vote the word "education" was incorporated so that CAVA now becomes CAVEA.

New officers for 1959-60 are: president, Reginald Hackett, AV supervisor, Toronto (Ontario); vice-president, Dennis Brown, curriculum director and AV specialist, Victoria (B.C.); secretary-treasurer, Emerson Freestone, AV specialist, Toronto; membership chairman, Cecil Wilkinson, past president, CAVA, and AV consultant, Scarborough (Ontario); editor of CAVEA *Newsletter*, Gordon Martin, AV specialist, Toronto.

Mr. Holliday writes, "We are still endeavouring to maintain our membership drive but being a very young organization it is very difficult at times to keep contact with all parts of the nation. . . ."

Mr. Holliday also reports a number of projectionists' classes conducted in Canada, not only for teachers but also for government employees using AV in their work.

Stinnett to New Post

T. M. Stinnett, executive secretary of the National Commission on Teacher Education and Professional Standards, NEA, was named NEA assistant executive secretary for professional development and welfare to succeed Hilda Maehling upon her retirement December 1. In addition to his new duties, Dr. Stinnett will continue as executive secretary of TEPS.

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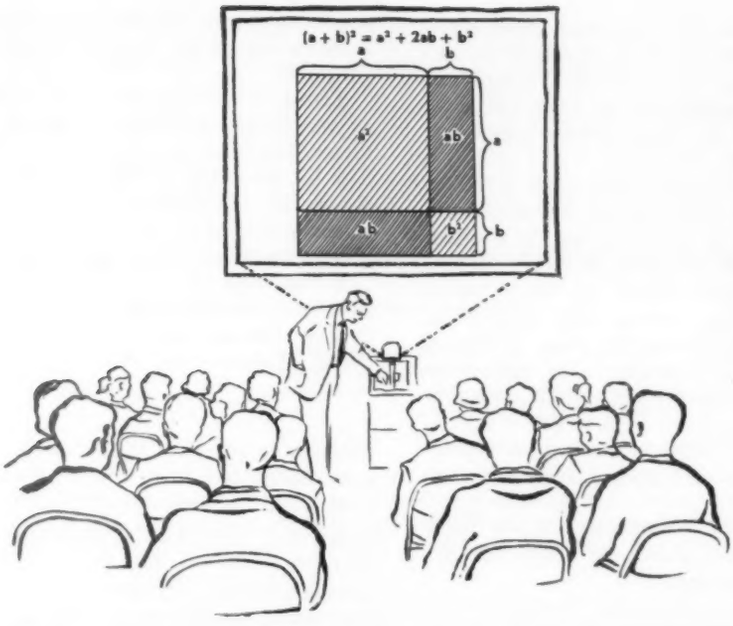

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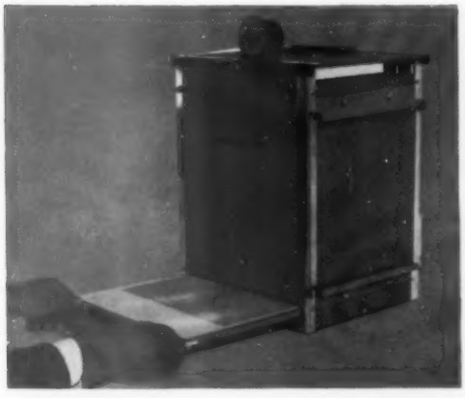

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TITLE VII PART B / A Progress Report

This report is based on information from C. Walter Stone, director, Educational Media Branch, Office of Education, U.S. Department of Health, Education and Welfare.

ESTABLISHED under provisions set forth in Part B of Title VII of the National Defense Education Act, the Dissemination Program has been organized to support planned information activities in these three categories —"basic," "immediately urgent," and "necessary-long-range." These activities, funded under contractual arrangements, serve to inform interested parties about what is taking place in the field of new educational media—who is doing what, what should be done, to what purpose, and, what has already been accomplished.

The chief dissemination methods employed to date include surveys and feasibility studies, publication (through various channels) conferences, workshops, and demonstrations. Topics receiving special emphasis include the following:

- research activities and requirements
- availability of instructional materials
- adequacy of equipment and facilities
- improved methods of utilization
- unique administrative applications
- needs for improved professional education and development of trained leadership (an area which is least satisfactorily covered by Title VII projects and by those initiated by other agencies)

To date a little more than $325,000 has been expended or committed under the Part B provisions. It is anticipated that amounts budgeted to dissemination activities will be increased substantially during each succeeding year of the program. Also supported by Title VII contracts (in addition to special projects) is the publication of more significant reports which accrue from completion of research activities. Twelve new types of contracts, approved for negotiation as and when appropriate during the current fiscal year ending June 30, 1960, will be announced later.

Today in education, Americans are privileged to witness the development of a new clock for the school day, a new calendar for the school year, new methods and new media for use in study and teaching. The results of these efforts should prove to be new levels of accomplishment — that is, more and better learning for more people in less time. The Dissemination Program, planned in full cooperation with specialists representing all major groups professionally concerned with educational uses of the newer media of communication, has already made a significant beginning in this direction.

Listed on these pages are a variety of contractual activities completed or under way as of December 15, 1959. The list does not include exhibits and the public information programs administered directly by the Office of Education staff. For further information regarding contracts listed or other aspects of the Title VII program, write to the Educational Media Branch, Office of Education, Washington 25, D. C.

[Editor's Note: Roy Hall's office has just announced that the Advisory Committee for Title VII will hold two meetings in 1960 (spring and fall) to consider proposals for research and experimentation. Proposals must be postmarked on or before February 1 for consideration at the spring meeting, and on or before August 1 for consideration by the Committee at its fall meeting. Proposals should be submitted to the director of the Educational Media Branch at the above address. Instructions for submission of proposals, including the preparation of applications, may be obtained from the same source.]

INSTITUTION OR AGENCY	PROJECT	NEED AND PROGRESS
1 BASIC (Concerned with Fundamental Problems)		
COLUMBIA UNIVERSITY	Feasibility Study Regarding the Establishment of a New Educational Media Research Information Service (Directed by Maurice F. Tauber)	There is a critical lack of information available to producers of research as well as educational administrators and teachers concerning new educational media research and experimentation. A preliminary survey of methods used in reporting research information was completed in late fall of 1959. A first major report is scheduled for completion during early spring of 1960.
INDIANA UNIVERSITY	A Study to Determine a Feasible Method of Establishing Bibliographic Control of Educational Audiovisual Materials for the Purpose of Informing Teachers Concerning Available Materials and Their Educational Utility (Directed by Margaret Rufsvold and Carolyn Guss)	Commercial and noncommercial systems for listing, indexing, evaluating, and distributing audiovisual materials are such that much difficulty is encountered in finding out about significant new materials and in locating and borrowing needed aids. It is anticipated that a preliminary report will be completed offering recommendations by early spring of 1960.

STANFORD UNIVERSITY	Education and the New Media (Exploration of Needed Research in the Use of New Media) (Directed by Wilbur Schramm)	Urgently needed for those interested in developing research activities in the new educational media is an assessment of research completed to date and an identification of gaps. A seminar, bringing together leaders in this field was held in Palo Alto, November 13-14. Papers presented at the seminar will be published in book form during the spring of 1960 by the Stanford University Press.
ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT	A Theoretical Framework for Development and Utilization of Educational Media and Materials (ASCD was represented by Chandos Reid)	For many years, educators have been handicapped in developing the use of educational media because of the lack of an adequate theory concerning optimum use. The first seminar was held in Washington, D. C., November 10-15. Proceedings from the seminar will be reproduced and distributed on a limited basis.
NATIONAL ACADEMY OF SCIENCES NATIONAL RESEARCH COUNCIL	Evaluation of New Curricular Development and New Techniques of Instruction (Chaired by Jerome Bruner)	The development of study and teaching programs in science and mathematics has suffered greatly from the lack of cooperative study and planning by specialists in the subject matter disciplines, in educational methods, and in the development and utilization of new media. An extended seminar was held at Woods Hole, Massachusetts (with partial support from Title VII), on September 8-19. Special papers developed during the seminar are being edited for publication and selective distribution.

2 URGENT (Satisfying Immediate Needs)

MODERN LANGUAGE ASSOCIATION	Language Materials List for Use in Improved Foreign Language Teaching in Public Elementary and Secondary Schools (Directed by Douglas William Alden)	The rapidly changing field of language instruction necessitates this type of information. Issued in October 1959.
NATIONAL ASSOCIATION OF EDUCATIONAL BROADCASTERS	The Feasibility and Role of State and Regional Networks in Educational Broadcasting (NAEB was represented by Harry J. Skornia)	The rapidly changing status of educational broadcasting and the great concern felt by educational leaders and the interested lay public in the development of ETV called for immediate attention to the administrative problems encountered in planning for the use of broadcast TV in formal education. A conference was held September 9-14, the proceedings of which will be issued in the near future.
NORTH CENTRAL ASSOCIATION OF COLLEGES AND SECONDARY SCHOOLS	A Seminar for the Identification and Dissemination of Effective Principles and Practices in the Use of Television for Educational Purposes (The Association was represented by Donald G. Emery)	Representing educational programs in some 17 states, the North Central Association is vitally concerned with helping its membership "tool up" for appropriate and effective use of television. A first conference, the report of which will be distributed, was held in Chicago, December 3-6. Subsequent seminars are planned.

3 NECESSARY—LONG RANGE—DESIRABLE (Essential to Sound Development of the Field)

DAVI IN COOPERATION WITH ASCD	Pilot Projects—Involving Regional Conferences and Workshop Demonstrations of Educational Use of the New Media (Co-chairmen, O. L. Davis and Harold E. Wigren)	Essential to achievement of sound development of educational use of new media is an informed corps of educational administrators and teachers who understand fully the educational potentialities represented. Regional conferences including the presentation of demonstrations of new types of materials, equipment, and methods of use, followed by an inventory of State and/or regional resources and means for upgrading professional understanding and competence, are required to meet the need. Pilot regional conferences were held in Nashville, August 10-12, attended by representatives of Kentucky, Tennessee, and West Virginia; and in Phoenix, November 23-25, involving Arizona, Nevada, New Mexico, and Utah.
UNIVERSITY OF COLORADO	A Planning Conference for Dissemination of Research Information (Co-chairmen, Elbee Ganns and Robert deKieffer)	Regional conferences are being scheduled in order that producers of research, as well as consumers (superintendents, principals, teachers, college faculties), may be informed concerning important new educational media research; in order that they may identify needs for new research and experimentation; and in order that they may consider appropriate ways and means of applying established results of research.

(See the next page)

3 NECESSARY—LONG RANGE—DESIRABLE (Essential to Sound Development of the Field)

UNIVERSITY OF COLORADO (Cont.)		A planning conference bringing together representatives of 13 states in the mountain plains area was held in Boulder, Colorado, December 20. The decision of the participants was to conduct in the early spring of 1960, a regional conference-workshop primarily concerned with research and research problems. Following the spring conference, appropriate reports will be issued. (Other regional research conferences are now being planned for spring or summer in California, the midwest, and the northeast portions of the United States. All conferences are regarded as experimental and are conducted in cooperation with state departments of education and appropriate universities. The regions vary in size.)
PORTLAND STATE COLLEGE	A Guide for Planning School Buildings for the Use of Modern Teaching Aids (To be developed by Amo De Bernardis, Victor Doherty, and Errett Hummel)	The most typical administrative, curriculum, and building arrangements of American public schools and colleges are neither appropriate nor conducive to effective use of the newer media. Architectural planning is seriously uninformed in this area. Following special study, necessary conferences, and on-the-spot examination of typical facilities, the Guide will be published and distributed, presumably early in 1961.
NATIONAL EDUCATIONAL TELEVISION AND RADIO CENTER	. . . Planning and Production of Filmed Reports of Teaching Practices in the Use of New Media for Instructional Purposes in the Field of Modern Foreign Languages, Mathematics, and General Science (The Center is represented by Robert B. Hudson, vice-president in charge of programs)	Public and professional understanding of the potential roles of new media in education is seriously deficient. Filmed case-study reports which might well be shown on both educational and commercial television stations as well as reviewed and discussed by interested groups can help to create needed appreciation of the ways in which newer media are being used to improve educational practice. Three films have been planned. Film is now being shot "on location." It is expected that the first films will be ready for distribution through the facilities of the NETRC in the fall of 1960.
BOARD OF EDUCATION OF WASHINGTON COUNTY PUBLIC SCHOOLS, MARYLAND	A Survey of Television Equipment and Facilities Used for Purposes of Instruction by Public Schools, Colleges, and Universities (To be completed by John R. Brugger)	ETV educators are concerned with the adequacy of existing technological developments and the accomplishments of existing installations. A special report is required for the use of the Advisory Committee on New Educational Media when reviewing television proposals for research or contractual activities. Preliminary phases of the survey have been completed. It is anticipated that a report will be issued in 1960.
INDIANA UNIVERSITY	*Improving Conditions for Learning—Budgeting Your Audiovisual Program* (Prepared by K. C. Rugg)	Information concerning the financing of new educational media programs to be developed for public education is essential. This publication by the late Dr. Rugg reviews the basis of financial support for audiovisual facilities and services in 28 selected school systems throughout the nation. Single copies are available on request from Indiana University as long as the supply lasts.
UNIVERSITY OF TEXAS	A Proposal for Field Study in the Wider Use of Faculty Resources Among a Number of Institutions of Higher Education by Means of Closed Circuit Television (Directed by Robert F. Schenkkan)	A demonstration of the ways in which closed circuit television facilities may be employed cooperatively to improve higher education is the purpose of this project. The first meeting of a national project advisory committee was held December 10-11 in Austin, Texas. The project is expected to run for several years and will include periodic reporting on all aspects of its operation, including administration, financing, programming, and so on.
SOCIETY OF MOTION PICTURES AND TELEVISION ENGINEERS	A Review of Media and Equipment Used for Educational Purposes; Adequacy and Need for Development of New Types (Directed by John Flory)	The need is urgent for intelligent planning for purchase and utilization of new educational media equipment, assessment of the general adequacy of such equipment to satisfy teaching and learning requirements, some prediction of what is technically feasible and what may be developed in the future in the way of new types of equipment. Under arrangements still to be finally determined it is intended that SMPTE will conduct a seminar on this problem for the purpose of gathering the necessary data for a publication. It is anticipated that the seminar will be conducted in the spring or summer of 1960 and that a book of edited proceedings will be issued during the fall.

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World Traveler

Margaret Divizia

Margaret Divizia, hardworking audiovisual director of the Los Angeles City Schools, begins a year's leave in February. The itinerary for her world tour reads like this: Australia first and from there to a number of places in that area; then to India, the Indian Ocean, the Red Sea, up through the Suez Canal to Naples where she will pick up an automobile. From Naples through Europe to the Scandinavian countries, back to England and Scotland, France, Portugal, and Spain; from Spain to Hong Kong, Shanghai, and Tokyo (again by ship and plane). After extensive travel in Japan she plans to reach home the last part of December 1960. *Bon voyage!*

Nigerian Assignments

Two faculty members of the Indiana University audiovisual center left in November for Nigeria to serve for two years as advisers to Western Nigeria's ministry of education. They are Warren D. Stevens, who will be chief of party, and Dennis W. Pett. Under an ICA contract with Indiana University they will advise on audiovisual methods to increase effectiveness of government programs in health, education, and agriculture. Both men will be accompanied by their families.

Pett

Stevens

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The new Kalart/Victor increases light output by at least 12%, thanks to a redesigned shutter. It accepts a 1200 watt lamp for even more light on screen. *Sound quality is magnificent.* A 15 watt amplifier, audio-engineered for greater power and low distortion, results in sheer listening pleasure. Entirely new in projector setup is the Kalart/Victor *door-mounted speaker.* It can be left closed on the projector while running—or detached and placed next to the screen. Still picture projection is vastly improved. Stills are *five times brighter,* with special glass heat filters provided as standard equipment. Maintenance is greatly simplified, too. Lubrication is required *only once a year.* Built-in oil reservoir holds enough oil to last for 1000 hours—or a year of heavy use without refilling.

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Random Tips from King

THE KONICA CAMERA COMPANY of Philadelphia has just sent me one of their new Model 111M 35mm cameras. To the best of my knowledge, with the exception of the Leica, this is the only camera available that will make it possible for the administrator to produce his own film strips directly. The Konica takes regular 35mm black and white or color film and should make easy work of producing a 35mm filmstrip. My camera just arrived and I am shooting my first roll of film with it. A report will appear in a later issue of AVI giving more details. If you are interested in immediate information, write to: Konica Camera Company, 76 West Chelton Avenue, Philadelphia 44.

• • •

I have always been interested in the fidelity and ease of operation of the Tandberg Tape Recorder. I have just received the Model 4-F which will play dual track stereo or, if desired, four tracks monaurally. Like its predecessors, this machine is capable of recording and playing back at 1⅞, 3¾, or 7½ inches per second. If the "thin" tape and four tracks are used at 1⅞ inches per second, it is possible to secure over 17 hours of recording on a single track. Regardless of your viewpoint concerning the value of stereo as a teaching device, if you are interested in audio products, you will want to hear this tape recorder in combination with a second amplifier, a good speaker, and a good stereo tape.

• • •

Those who did not have the opportunity to attend the Seattle Convention probably missed the RCA 'Lectric Lecturn. This is one of the nicest packaging jobs that we have had the pleasure of seeing and using. It is a high-quality 10-watt amplifier built into a beautiful wooden case. The back of the case lifts up and serves as a speaker's rostrum. The microphone and flexible microphone stand are carried within the case and the model can be used with 100-volt current or as a battery-operated unit. Many of our schools today have an "all-purpose" or similar room and there are occasions when a type of sound system is needed even though the school auditorium boasts a regular public address system.

• • •

While using a film as part of my presentation to an audiovisual meet-

ing in a South Plainfield Community, I noticed that our meeting room had very poor acoustics. I was using one of the new Eastman Kodak 16mm projectors and I was amazed at the difference the "fidelity control" made in this instance. Have you had an opportunity to try this to see whether or not it could be of benefit to you and your school?

• • •

The 8mm film seems to be attracting wider notice. If you are among those interested in this medium you will want to see and use the 8mm projector introduced by Tandberg. For three cents per foot you can have your 8mm film magnetically stripped and add your own sound. I think it's worth your time to have one in for a demonstration. —WILLIAM H. KING

Army Dependents and AV

On occasion AVI has reported on the Army's use of audiovisual aids in training the troops but little has been said about their use in educating the Army's dependents abroad. Don A. Nolder, AV specialist for the U.S. Army Dependents' School System, the headquarters of which are located in Karlsruhe, Germany, tells of a vigorous AV program in 120 schools located throughout France, Germany, Italy and North Africa. He writes that in providing necessary instructional materials for the approximately 2300 American and 400 national teachers, as well as the 60,000 American children, the administration has given solid support to an audiovisual program that is definitely growing with the curriculum. The central film library services approximately 3000 16mm films and the schools are permanently stocked with some 30,000 filmstrips this year.

Previews Prove Popular

WDAVI's president, Donald Scott, reports that film previews during both afternoons of Wisconsin's fall meeting proved very popular. The 30 films shown during the two sessions were listed in the general program for the benefit of teachers. Other attractions at the November meeting were demonstrations by Jim LeMay of Ozalid (overhead projector) and Richard Hubbard of the University of Wisconsin (on the use of graphics). The film previews, Dr. Scott writes, will be continued another year.

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554 Pages, $7.95

This text on audiovisual methods provides concrete, practical information on the use of instructional materials to plan and carry out learning activities. Examples of use have been drawn from all subject fields, from kindergarten through college. It is the first audiovisual text to use an inventive and stimulating format in which profuse illustrations are correlated with the text. Emphasis throughout is on the principle that learning is most effective when materials are integrated with instruction. A-V Instructional Materials Manual, $3.50. Teacher's Guide, Free.

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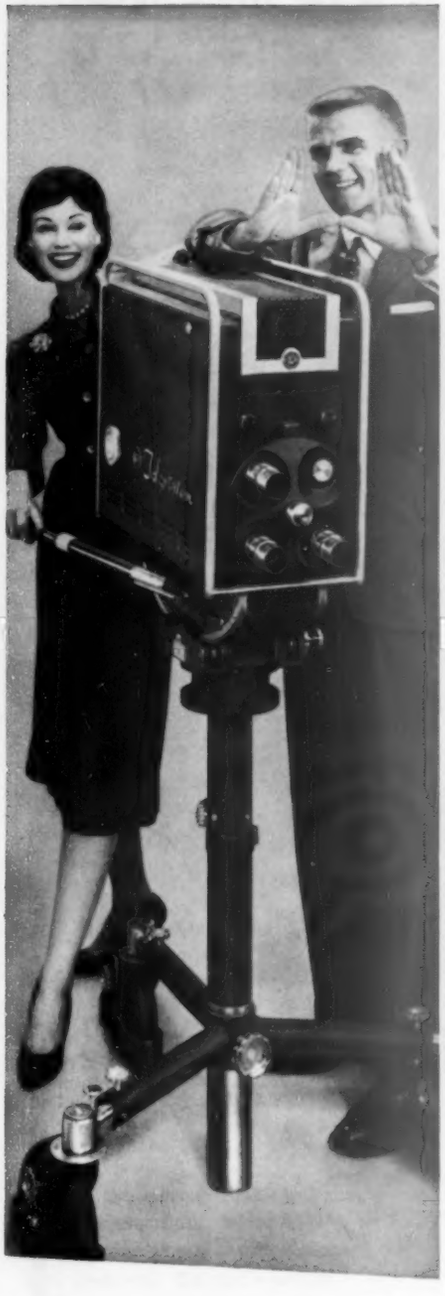

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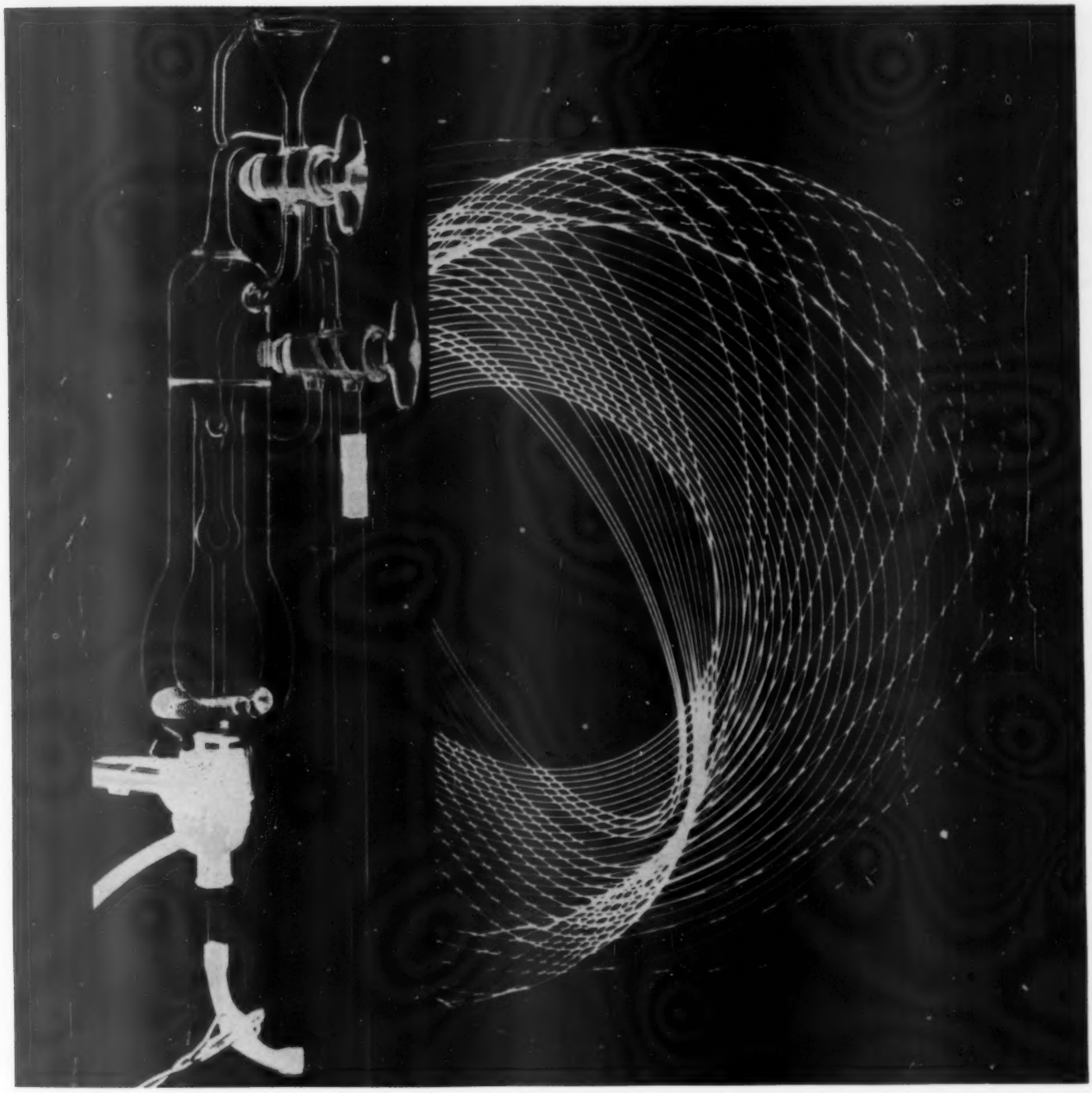

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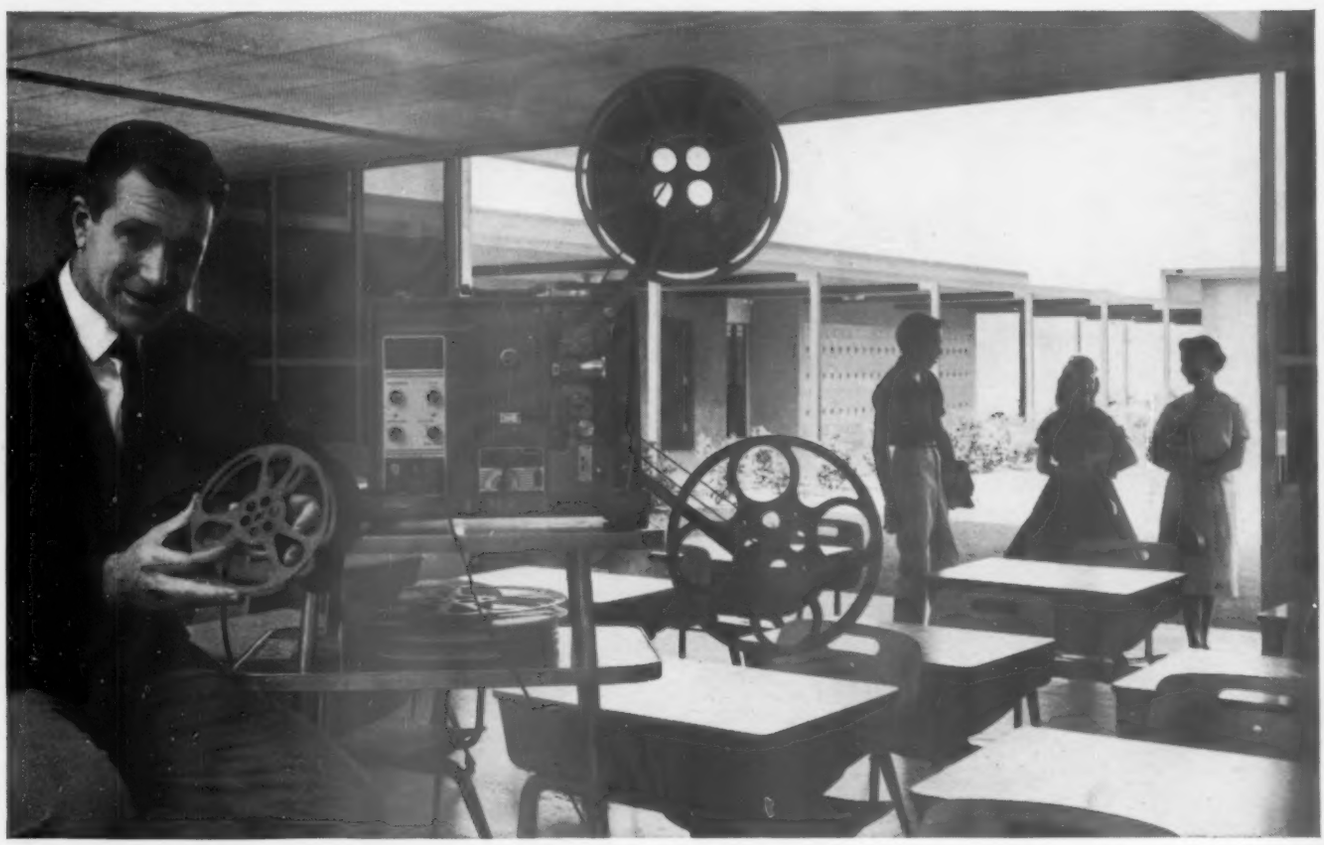

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